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United States General Accounting Office
Washington, DC 20548

Accounting and Information
Management Division

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Mr. Jack Shipley
Director, Financial Management Division
United States Environmental Protection Agency
Washington, D.C. 20460

Dear Mr. Shipley:

Thank you for the opportunity to review and comment on the Environmental Protection Agency's (EPA) proposed Superfund indirect cost accounting methodology. EPA needs effective cost accounting because, under the law that established the Superfund program, EPA seeks reimbursements from responsible parties for billions of dollars of costs it incurs in connection with the cleanup of the nation's worst hazardous waste sites.

In your August 1999 letter to us, you explained that EPA is completing work on a new methodology that is intended to charge all appropriate indirect costs to Superfund sites for possible cost recovery, in accordance with new federal cost accounting standards. You also mentioned that the proposed methodology was undergoing review by a CPA firm.¹

In light of our previous reports suggesting that EPA revise its indirect cost methodology to increase Superfund cost recoveries, you asked that we provide written comments on the proposed methodology and consider the following questions:

1. Does the proposed methodology follow generally accepted cost accounting standards?
2. Does the proposed methodology appear to be consistent with the laws and regulations applicable to Superfund cost recovery?
3. Does the proposed methodology satisfy our concerns that EPA's Superfund cost recoveries seek the appropriate amount of indirect costs?

Results in Brief

We found that the design of EPA's proposed Superfund indirect cost methodology complies with cost accounting standards for the federal government. The proposed methodology's

¹In September 1999, the CPA firm KPMG issued its report, *Review of Proposed Superfund Indirect Rates Methodology*.

design meets the five fundamental requirements for managerial cost accounting in the standards. The proposed methodology also complies with provisions of laws and regulations that are specific to calculating cost reimbursements for the Superfund program because it is designed to provide an accurate accounting of the full costs of Superfund site response for recovery from responsible parties.

If it is used by EPA to calculate indirect cost reimbursements, the proposed methodology should adequately address our previously expressed concerns that the indirect costs EPA currently charges responsible parties are understated. Appropriate costs would be included in the calculation of indirect cost pools and rates, in accordance with the definitions and required treatments for direct and indirect costs in the standards. Moreover, our review did not detect any design flaws where indirect costs that we expected to have been included in the calculations were not included. Also, the allocation bases used to distribute indirect costs in various steps of the proposed methodology are appropriate.

The proposed methodology should significantly increase the indirect costs to be allocated to Superfund sites for potential cost recovery, compared to the existing methodology. The increase is primarily due to the fact that each EPA region's entire pool of indirect Superfund costs is allocable to sites under the proposed methodology. In contrast, under the existing methodology, only a portion of each region's pool of indirect Superfund costs is allocable, due to the way EPA performs certain calculations related to its indirect costs rates.

EPA abandoned a past attempt to increase the indirect rates it charges responsible parties because of their adverse reaction to the increase. Therefore, EPA will not fully address our concerns about its indirect cost calculations until it actually implements the proposed methodology in its Superfund cost recovery program. Also, we have made a number of observations regarding enhancements to the proposed methodology such as utilizing control totals and clarifying key concepts.

Background

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended, created the Superfund program and governs the cleanup of hazardous waste sites. The National Oil and Hazardous Substances Pollution Contingency Plan, more commonly called the National Contingency Plan, or NCP, is the federal government's blueprint for responding to both oil spills and hazardous substance releases. The Plan is required by section 105 of CERCLA of 1980, as amended. It provides the organizational structure and procedures for preparing for and responding to discharges of oil and releases of hazardous substances, pollutants, and contaminants and established the National Priorities List (NPL) of contaminated sites.

In accordance with the National Contingency Plan, EPA evaluates contaminated sites and places those that qualify for long-term cleanup on the NPL. EPA can compel the private parties responsible for contamination at NPL sites to clean them up, or it can conduct the cleanup and seek reimbursement of its costs from the responsible parties. EPA uses the Superfund Trust Fund, established by CERCLA, to pay for cleanups and related activities.

Cost Accounting Standards
for the Federal Government

Statement of Federal Financial Accounting Standards (SFFAS) No. 4, *Managerial Cost Accounting Standards*, contains generally accepted cost accounting standards for the federal government. SFFAS No. 4 is aimed at providing reliable information on the full cost of federal programs, their activities, and outputs. As summarized below, SFFAS No. 4 contains five standards which set forth the fundamental elements of managerial cost accounting:

1. Requirement for Cost Accounting: Each reporting entity should accumulate and report the cost of its activities regularly for management information purposes.
2. Responsibility Segments: Management of each reporting entity should define and establish responsibility segments and perform managerial cost accounting to report the costs of each segment's outputs.
3. Full Costs: Reporting entities should report the full costs of outputs, which is the total amount of resources used to produce the output, including direct and indirect costs.
4. Inter-entity Costs: Each entity's full costs should incorporate the full cost of goods and services received from other entities.
5. Costing Methodology: The costs of resources that directly or indirectly contribute to the production of outputs should be accumulated and assigned to outputs using appropriate costing methodologies.

Laws and Regulations Specific
to Calculating Recoverable Costs

EPA's efforts to evaluate sites, enforce CERCLA, and remediate sites are referred to collectively as "response," a term that is defined by CERCLA. CERCLA Section 107 provides that responsible parties shall be liable for "all costs of removal or remedial action" and "any other necessary costs of response" that are consistent with the National Contingency Plan. Additionally, Section 107 specifies that the liability of responsible parties shall be the "full and total costs of response and damages."

EPA's implementing regulation on cost recovery, which is contained in section 300.160 of Title 40 of the Code of Federal Regulations (C.F.R.), requires that during all phases of response, EPA shall complete and maintain documentation to support all actions taken under the National Contingency Plan and to form the basis of cost recovery. In general, the documentation shall be sufficient to provide "an accurate accounting" of costs incurred for response actions.

EPA's Existing Methodology

EPA's existing methodology for estimating the indirect costs of site response for purposes of cost recovery has been in use since 1985. The existing methodology allocates indirect costs

to sites through the use of overhead rates that are calculated for each of EPA's 10 regions through a three-stage process.

For a given region, allocated amounts of administrative and support costs from EPA headquarters, headquarters program offices, and the regional office are added to the overhead costs of regional program offices. In the final stage of the process, a portion of these indirect costs are determined to be allocable to sites. Then, the allocable amount is divided by the region's total Superfund labor hours (both direct and indirect) and rounded to the nearest whole dollar to determine the regional overhead rate, which is expressed as an hourly rate.

The overhead rate is the amount of overhead dollars to be allocated to a Superfund site for each direct labor hour charged to that site by EPA employees. For example, if the regional overhead rate is \$75, and 1,000 direct labor hours are charged to a site within that region, the amount of overhead allocated to that site for purposes of cost recovery is \$75,000. The sum of these indirect costs and the direct costs charged to the site represent the total dollar amount that EPA will attempt to recover from responsible parties.

Our Previous Reports on the Existing Methodology

For years, we reported that EPA's existing methodology did not charge responsible parties for all of the indirect costs of operating the Superfund program. For example, in 1994 we reported that EPA recovered only a small amount of its costs because its definition of indirect costs was too narrow.²

Beginning in 1995, our reports on the Superfund Program as a "high-risk" area of the federal government have discussed, among other issues, the need to broaden the kinds of indirect costs collected from responsible parties.³ Our latest high-risk report on EPA in January 1999 reiterated that the EPA's regional overhead rates were understated.⁴

Most recently, we reported in April 1999 that EPA excluded large portions of its indirect costs to administer the Superfund program when it calculated the costs to be assessed to responsible parties.⁵ This report explained that, in response to the new federal cost accounting standards contained in SFFAS No. 4, EPA was developing a new methodology that would more accurately account for these costs. Finally, we recommended that EPA implement the proposed methodology as soon as it was approved.

²*Superfund: EPA Has Opportunities to Increase Recoveries of Costs* (GAO/RCED-94-196, September 28, 1994).

³*High-Risk Series: Superfund Program Management* (GAO/HR-95-12, February 1995); *High Risk Series: Superfund Program Management* (GAO/HR-97-14, February 1997).

⁴*Performance and Accountability Series: Major Management Challenges and Program Risks: Environmental Protection Agency* (GAO/OGC-99-17, January 1999).

⁵*Superfund: Progress Made by EPA and Other Federal Agencies to Resolve Program Management Issues* (GAO/RCED-99-111, April 1999).

EPA's Proposed Methodology

EPA proposed methodology determines the amount of Superfund cost reimbursements by assigning direct costs to sites and allocating indirect costs to sites using indirect cost rates that are calculated for each of EPA's 10 regions through a nine-step process.

EPA's annual costs are analyzed to determine whether they should be included in calculations that produce a Superfund indirect cost pool for each region. Costs included in the calculations are general administrative, management, and support costs that are consumed across multiple EPA organizations. These indirect costs consist of agency-wide costs, regional costs, and Superfund program management costs at the headquarters and regional levels. Each region's indirect cost pool is divided by the region's direct cost incurred for site response to determine its indirect rate for the fiscal year, which is expressed as a percentage of direct site costs.

The region's indirect cost rate is multiplied against the direct costs incurred for a particular Superfund site within the region to determine the amount of indirect costs that will be allocated to that site. For example, a region with a \$40 million share of the indirect cost pool and \$100 million of direct costs on Superfund sites would have an indirect cost rate of 40 percent (\$40 million divided by \$100 million). If a site in that region incurred \$10 million of direct costs during a year, the amount of indirect costs allocated to that site for the year would be \$4 million (\$10 million multiplied by 40 percent). The total reimbursement amount that EPA would seek for that site for the year would be \$14 million (\$10 million direct plus \$4 million indirect costs). If costs for a site are incurred for more than one year, EPA will attempt to recover the aggregate total costs for all years.

Objectives, Scope, and Methodology

The objectives of our review were to determine whether EPA's proposed methodology (1) complies with SFFAS No. 4, (2) complies with CERCLA Section 107 and 40 C.F.R. 300.160, and (3) adequately addresses concerns raised in our previous reports that EPA's existing methodology does not charge responsible parties for all of the indirect costs of operating the Superfund program.

Our review focused on the design of EPA's proposed methodology. Although we gained an understanding of EPA's existing methodology, we reviewed it in less detail than we did the proposed methodology. Also, we did not evaluate EPA's underlying main accounting system or other cost accounting processes that may be related to it, such as EPA's external reporting in the Statement of Net Cost. While EPA received an unqualified audit opinion on its fiscal year 1998 financial statements,⁶ its Office of Inspector General (OIG) made recommendations related to EPA's underlying accounting systems. Also, one of our reports made recommendations regarding EPA's main accounting system, which provides cost data

⁶Financial Management: Audit of EPA's Fiscal 1998 Financial Statements, U.S. EPA Office of Inspector General, Audit Report 99B0003, September 28, 1999.

for the proposed methodology.⁷ A determination of whether those recommendations have been implemented is beyond the scope of this review.

To meet our objectives, we visited EPA headquarters to interview accountants from the Program and Cost Accounting Branch of the Financial Management Division and to obtain relevant documentation. Together with EPA's accountants, we reviewed an EPA-prepared example of how the proposed methodology works, using fiscal year 1997 data from EPA's main accounting system. We reviewed the series of calculations in spreadsheets supporting the methodology, from beginning to end. To test mechanical accuracy, we traced selected amounts to supporting documents and recalculated key amounts.

To familiarize ourselves with the EPA organization, its activities, and the types of costs it incurs, we reviewed EPA's fiscal year 1998 audited financial statements, EPA's *Strategic Plan* (dated September 1997), and EPA's *1999 Annual Plan* under the Government Performance and Results Act. We researched EPA's account number structure to gain an understanding of how the costs of EPA's organizations and activities are accumulated in its main accounting system and how account numbers are used on source documents for transactions such as employee time cards, travel vouchers, and procurement requests. We compared the operation of the spreadsheets against EPA's narrative descriptions of the methodology. We also reviewed KPMG's September 1999 report, which analyzed the existing methodology and the proposed methodology.

Based on our understanding of the design of the proposed methodology, we assessed whether it complies with SFFAS No. 4, and with the laws and regulations we identified as being specific to calculating the costs to be recovered under the Superfund program (CERCLA 107 and 40 C.F.R. 300.160). We also evaluated whether the proposed methodology's design adequately addresses concerns raised in our prior reports that EPA's cost recoveries seek the appropriate indirect costs from responsible parties. Finally, we compared the dollar amounts of indirect costs that would be allocable to sites under the proposed methodology versus those allocable to sites under the existing methodology. This comparison was made for fiscal year 1994, the only year for which comparable data were available. We conducted our review from September 27, 1999 through December 15, 1999, in accordance with generally accepted government auditing standards.

The Proposed Methodology Complies With SFFAS No. 4

The design of EPA's proposed Superfund indirect cost methodology complies with the five standards in SFFAS No. 4. For example, the proposed methodology meets the "requirement for cost accounting" because it accumulates and reports the costs of the Superfund program on a regular basis. The methodology also meets the requirements related to "responsibility segments," although it would be helpful if the responsibility segment and the related output were more clearly defined. By capturing both the direct and indirect costs of Superfund site response, the methodology complies with the "full costs" requirement. Because it allocates

⁷*Superfund: System Enhancements Could Improve the Efficiency of Cost Recovery* (GAO/AIMD-95-177, August 1995).

identified costs incurred by the Office of Personnel Management to partially fund EPA employee benefits, the methodology meets the requirement to account for "inter-entity costs." Finally, the methodology conforms to the requirement for a "costing methodology" because it implements an acceptable approach described in the standard.

1. Requirement for Cost Accounting

For each of EPA's 10 regions, the proposed methodology is designed to accumulate an indirect cost pool and calculate an indirect cost rate. A region's indirect cost rate is then multiplied against the direct costs for a specific Superfund site within the region to determine the share of the region's indirect cost pool that should be allocated to that site. The sum of the indirect costs that are allocated to the site, plus the direct costs recorded for the site on EPA's accounting system, is the total cost of Superfund site response that EPA will attempt to recover from responsible parties.

As such, the design of the proposed methodology meets the "Requirement for Cost Accounting" standard in SFFAS No. 4, which states that "Each reporting entity should accumulate and report the cost of its activities on a regular basis for management information purposes." In accordance with SFFAS No. 4, paragraph 52, the particular management purpose addressed by the methodology is the "determination of reimbursements." Also, as supported by EPA's main accounting system, the proposed methodology also meets the definition of a cost accounting system in SFFAS No. 4, paragraph 74, which is "a continuous and systematic cost accounting process which may be designed to accumulate and assign costs to a variety of objects routinely, or as desired by management."

The proposed methodology draws upon cost data from EPA's main accounting system, the Integrated Financial Management System (IFMS), to provide a valid and supportable approach for accounting for the direct and indirect costs of Superfund site response. Data for the proposed methodology is extracted from IFMS via the Management Accounting Reporting System (MARS), which is a database query system and report generator. By specifying desired data fields and calculations, EPA employees use MARS to query the IFMS database and produce reports. Then, data from numerous MARS reports are compiled into an intermediate 24-page "Summary of Data" spreadsheet that serves as a key supporting document for an additional nine-step spreadsheet that calculates each region's indirect cost rate. Also, some data from the MARS reports are input directly to the nine-step spreadsheet, without flowing through the 24-page Summary of Data.

IFMS features a comprehensive account number structure for tracking the costs charged to EPA organizations and activities, including specific Superfund sites. This account number structure was revised in 1996 to facilitate EPA's Superfund cost recovery, among other reasons. Within the account number, IFMS accumulates the costs of EPA's organizations and suborganizations through the use of Account Holder Responsibility Center codes. These codes are sufficiently detailed to allow the identification and assignment of indirect costs in relation to the Superfund program and Superfund site response. The direct costs of site response are directly traced to individual Superfund sites using Site Spill Identification (SSID) numbers and related codes to identify actions taken at sites and "operable units" within sites. Moreover, the cost data in IFMS are traceable to source documents and records.

For example, EPA employee time cards, travel vouchers, and procurement requests include an account number that indicates where the costs are to be charged.

Our recalculations did not detect logic errors in the operation of the formulas in the rate calculation spreadsheets. However, KPMG's review did detect two such errors, which were corrected by EPA prior to our review. Also, our tracing of amounts detected an immaterial error in transcribing the amount of regional general and administrative (G&A) costs for Region 4. The amount on the data summary spreadsheet (\$7,449,192) does not equal the amount input into the rate calculation spreadsheet for step 6 (\$7,448,780), a difference of \$412.

The detection of these errors illustrates that the accuracy of the rate calculations is dependent on extensive MARS extracts from IFMS and manual transcriptions from MARS reports into the data summary spreadsheets and the nine-step spreadsheets. This labor-intensive process, requiring an EPA-estimated 160 staff hours for each fiscal year for which rates are calculated, is clearly subject to human error.

KPMG found, in its September 1999 report, that the proposed methodology requires a great deal of manual manipulation to calculate the rates, and this type of implementation is prone to errors. KPMG recommended that EPA explore automating the implementation of the proposed methodology to decrease errors and drastically decrease the time it takes to compute the indirect rates.

EPA recognizes the need to implement controls to ensure that the proposed methodology works as intended, including avoiding mechanical errors. EPA plans to develop step-by-step instructions for making the indirect rate computations which will be illustrated with example calculations and source documents, and will be updated each year. When the official rates are calculated for each fiscal year, a knowledgeable reviewer other than the preparer will check the mechanical accuracy of the transcriptions and calculations and document the results of the review. The reviewer will also check the calculations to make sure they are adjusted for any changes in EPA operations and EPA's accounting system.

GAO Observations

We agree with KPMG that automating the data extracts and calculations to the extent possible would enhance the mechanical accuracy and efficiency of the proposed methodology. Moreover, because the proposed methodology depends on extensive extracts of financial data from IFMS and numerous allocations are made in the nine-step rate calculation spreadsheets, additional controls are needed to ensure accuracy.

Accordingly, when extracting data from an accounting system for cost accounting purposes, control totals should be established to ensure completeness and avoid possible duplications. First, the universe of dollars that are subject to cost accounting analysis should be identified. From a completeness standpoint, this is usually all of the dollars from the general ledger that are reported in the Statement of Net Costs.

Once the universe is established, the next step is to segregate the dollars into subsets for purposes of excluding costs from certain allocations, determining amounts that will be allocated, identifying the allocation bases for distributing costs, and calculating allocation ratios. At every step in segregating and allocating the universe of dollars, control totals should be maintained that prove that all of the dollars are still accounted for and that none of the dollars are counted twice. However, the calculation spreadsheets for the proposed methodology do not document the use of control totals. While our review did not detect any omissions or duplications of costs, EPA could enhance its controls over the completeness and accuracy of its voluminous calculations by documenting control totals.

2. Responsibility Segments

A basic concept of cost accounting is the accumulation and assignment of direct and indirect costs to some unit of activity or accomplishment. Before arriving at the assignment of costs, SFFAS No. 4 builds a conceptual framework that starts at the top of the reporting entity and progresses down through analysis of its activities. A key step is to define the "responsibility segments" of the reporting entity. Once the responsibility segments are defined, the next step is to define the outputs of each segment. Then, direct and indirect costs can be identified in relation to the outputs and assigned.

The responsibility segment for the methodology is the Superfund Program. The output of that responsibility segment under the methodology is Superfund "site response." In relation to the pertinent responsibility segment and its output, EPA's costs are analyzed to determine whether they should be included in, or excluded from, calculations for the regional indirect cost pools and rates. Therefore, the proposed methodology is in compliance with the "Responsibility Segments" standard in SFFAS No. 4 which states: "Management of each reporting entity should define and establish responsibility segments. Managerial cost accounting should be performed to measure and report the costs of each segment's outputs."

EPA's treatment of the Superfund Program as a responsibility segment is consistent with the standard's definition that "A responsibility segment is a component of a reporting entity that is responsible for carrying out a mission, conducting a major line of activity, or producing one or a group of related products or services." Also, the treatment of Superfund site response as an output is consistent with the standard's definition that outputs are "products and services generated from the consumption of resources."

GAO Observations

While we were able to discern the responsibility segment and the related output by reviewing the methodology, these elements are not clearly defined in the methodology. To confirm the responsibility segment and the output, we found it necessary to make inquiries of EPA accountants. It would be helpful if the responsibility segment and the related output were specifically and overtly identified in the methodology, to ensure that there is no confusion over these key concepts.

3. Full Costs

Because the proposed methodology's design appropriately identifies and assigns both direct and indirect costs to Superfund site response, it meets the "full cost" requirement in SFFAS No. 4 for reporting "the costs of resources ...that directly or indirectly contribute to the output."

First, the definition and assignment of the direct costs of Superfund site response to individual Superfund sites is appropriate. These direct costs include the costs of salaries and benefits of employees who work directly at the site or provide other site-related efforts, and contractor costs of removing or remediating hazardous wastes. As such, the direct costs of Superfund site response are consistent with the definition of direct costs in SFFAS No. 4, paragraph 90. Direct costs are costs that can be specifically identified with an output. Moreover, they are directly traced (i.e., specifically linked to sites using SSID numbers), in accordance with paragraph 124.

Second, the indirect costs included in the calculations for the Superfund indirect cost pools and rates are appropriate because (1) they are general administrative, management, and support costs that are consumed across multiple organizations, and (2) they ultimately contribute to Superfund site response. These indirect costs consist of agencywide costs, regional costs, and Superfund Program management costs at the headquarters and regional levels. As such, costs in the Superfund indirect cost pool are consistent with the definition of indirect costs in SFFAS No. 4, paragraph 91. Indirect costs are costs of resources that are jointly or commonly used to produce two or more outputs, but are not specifically identifiable with any of the outputs. Also, our review did not detect any design flaws where indirect costs that we expected to have been included in the calculations were not included.

Certain costs are appropriately excluded from the calculations for the regional Superfund indirect cost pools and rates because they are

- direct costs of programs that are external to, and which do not benefit, the Superfund Program, for example, costs associated with the Oil program, State and Tribal Assistance Grants, and the Science and Technology appropriation,
- direct costs of activities conducted under the Superfund Program, but that do not benefit Superfund site response, for example, costs associated with Research and Development, the National Institute of Environmental Health Sciences, the Office of Solid Waste and Emergency Response, and preliminary site assessments ("ZZ costs") for non-Superfund sites, or
- not assignable, for example, costs of the Office of International Activities and certain organizations within the Office of the Administrator.

GAO Observations

In EPA's narrative description of the proposed methodology, the language used to classify costs is confusing when it describes certain costs (listed above) that are either external or

internal to the Superfund program. EPA uses the term "programmatic" to describe these costs. The term programmatic is not used in SFFAS No. 4, which definitively sets forth the terms to be used when classifying and assigning the costs of federal operations (i.e., direct and indirect). According to SFFAS No. 4, paragraph 22, one of the objectives for SFFAS No. 4 was to provide "standardizing terminology for managerial cost accounting to improve communication among federal organizations and users of cost information."

For this section of EPA's narrative (pages 1 through 4), we found it necessary to make inquiries of EPA accountants in order to obtain satisfactory explanations of whether EPA considers the costs in question to be direct or indirect in relation to Superfund site response. EPA's accountants explained that in the parlance of EPA managers, programmatic costs are the costs of major EPA programs such as the Superfund program, the Oil program, and the Air program. The use of the term "programmatic" in the methodology was an attempt to denote costs that can be directly traced to a specific EPA program and that should not be allocated to another EPA program. Using the standardized language from SFFAS No. 4 would clarify the methodology and provide a more supportable basis for it to withstand scrutiny.

Finally, although identified as part of the Superfund Indirect Cost Pool, amounts for depreciation are currently not allocated because an allocation base has not yet been determined. EPA should determine an appropriate allocation base and include amounts for depreciation in the computation of regional indirect cost rates. Depreciation was not included in the regional indirect cost pools under the existing methodology.

4. Inter-Entity Costs

As part of the full cost of Superfund site response, the methodology recognizes certain inter-entity costs (i.e., costs incurred by OPM to partially fund EPA employee benefits), which are allocated to the national G&A cost pool for purposes of calculating the national G&A rate. This treatment of inter-entity costs is consistent with the "Inter-entity Costs" standard in SFFAS No. 4, and in particular, paragraph 109, footnote 32, on pension and retirement benefits.

While SFFAS No. 4 provides general standards for recognizing inter-entity costs, further guidance for identifying specific inter-entity costs to be recognized by federal agencies is under development by the Office of Management and Budget. Therefore, it is possible that the current design of the proposed methodology does not address all of the inter-entity costs that OMB will eventually identify for recognition. SFFAS No. 4, paragraph 110 states that "It is anticipated that the largest and most important inter-entity costs will be identified first. As entities gain experience in the application of the standard, recognition of other inter-entity costs may be specified in future guidance or as required by future standards."

5. Costing Methodology

The proposed methodology is essentially a job order costing approach as defined by SFFAS No. 4, paragraphs 154-156, that traces direct costs to sites and assigns indirect costs to sites using indirect rates that are calculated for each EPA region. As such, the methodology meets

the "Costing Methodology" standard in SFFAS No. 4 that requires that the full costs of resources that directly or indirectly contribute to the production of outputs should be assigned to outputs using appropriate costing methodologies.

The job order costing approach is well suited to determining the full costs of site response under the Superfund program, as indicated by paragraph 156, which states "Job order costing is appropriate for responsibility segments that produce special order products, or perform projects and assignments that differ in duration, complexity, or input requirements." Moreover, EPA's use of SSID numbers (and related codes to identify actions taken at sites and "operable units" within sites) is consistent with paragraph 155, which suggests, "Each job has a number or code to accumulate costs. Resources spent are identified with the job code."

The allocations of indirect costs are appropriate because they are based on "relevant common denominators" (allocation bases), as described in SFFAS No. 4, paragraph 134. For example, the cost of EPA's Office of Human Resources is allocated to other EPA organizations based on the personnel compensation and benefit costs for those organizations. Also, facilities' costs are allocated based on full time equivalent employees as an allocation base.

The proposed methodology allocates the regional indirect costs to sites based on total direct costs incurred for sites, instead of based on direct hours charged to sites by EPA employees, as is done under the existing methodology. This is an improvement because total direct costs are a broader and more relevant allocation base than direct labor hours. Compared to direct labor hours, direct costs are more reflective of the full range of activities associated with site response. For example, total direct costs includes contractor costs, which are often incurred by EPA, but direct labor hours do not reflect this element of site response.

As opposed to using one national rate, EPA's use of indirect cost rates for each region is reasonable. The variations in the type of contaminated sites and work performed within each region is reflected in indirect rates that vary from 27 to 52 percent. The share of indirect costs that are allocated to a particular site within a region is calculated by multiplying the direct costs for the site by the region's indirect cost rate. In doing so, EPA achieves a more precise matching of costs than it would if it used one national indirect rate as the multiplier (which would be 38.3 percent for fiscal year 1997).

**The Proposed Methodology Complies
With CERCLA 107 and 40 C.F.R. 300.160**

As designed, EPA's proposed Superfund indirect cost methodology complies with the provisions of laws and regulations that are specific to calculating cost reimbursements for the Superfund program. The methodology provides an accurate accounting of the full costs of Superfund site response for possible cost recovery from responsible parties. Therefore, the methodology is consistent with CERCLA Section 107 and 40 C.F.R. 300.160.

CERCLA 107 requires that responsible parties shall be liable for "all costs of removal or remedial action" and "any other necessary costs of response" that are consistent with the

National Contingency Plan. The proposed methodology's design complies with these provisions because it appropriately calculates both the direct and indirect costs of Superfund site response for purposes of cost reimbursement, in accordance with the full cost and inter-entity cost requirements in SFFAS No. 4.

40 C.F.R. 300.160 requires an accurate accounting of costs incurred by EPA for Superfund site response. As described in the above sections on compliance with SFFAS No. 4, the proposed methodology is designed to provide an accurate accounting of the full costs of EPA's Superfund site response, which meets this requirement.

The Proposed Methodology Increases Potentially Recoverable Indirect Costs

The proposed methodology should significantly increase the indirect costs to be allocated to Superfund sites for potential cost recovery, compared to the existing methodology. For example, based on fiscal year 1994 data, the EPA-wide total of indirect costs that would be potentially recoverable under the existing methodology is \$114 million. Under the proposed methodology the comparable EPA-wide total that could be recovered is \$312 million. The increase of \$198 million is primarily due to the fact that each EPA region's entire pool of indirect Superfund costs is allocable to sites under the proposed methodology.

In contrast, under the existing methodology, only a portion of EPA's indirect Superfund costs can be allocated to sites, and thus, be potentially recoverable. *This is because the existing regional overhead rates are calculated based on total Superfund hours (direct labor hours plus indirect labor hours), but the rates are allocated to direct labor hours only.* For example, if a region accumulates \$30 million of indirect Superfund costs and charges 400,000 Superfund hours (140,000 direct hours and 260,000 indirect hours), the calculation of the overhead rate would be:

$$\frac{\$30,000,000 \text{ indirect Superfund costs}}{400,000 \text{ Superfund hours}} = \$75 \text{ overhead rate}$$

When applied to all site hours, the maximum amount of indirect Superfund costs that can be allocated to sites and recovered by EPA is \$10.5 million:

$$\$75 \times 140,000 \text{ site hours} = \$10,500,000 \text{ potentially recoverable}$$

GAO Observations

In order for all of EPA's indirect Superfund costs to be potentially recoverable, the number used as the denominator to calculate the rate should be the same as the number used to allocate the rate. Since the number used to allocate the rate is lower, the result is that only a portion of EPA's indirect Superfund costs—in this case, 35 percent—can be allocated to sites.

EPA Will Have Addressed Our Concerns
When the Proposed Methodology Is Implemented

While the design of the proposed methodology addresses our past concerns that the indirect costs EPA charges responsible parties are understated, we will continue to consider EPA's indirect cost calculations a high-risk area until we verify that EPA has implemented the proposed methodology in its Superfund cost recovery program.

As described above, the proposed methodology includes all of the indirect costs allocable to Superfund site response in the calculations for the indirect cost pools and rates. Moreover, the allocations of indirect costs are appropriate because they are based on relevant allocation bases. The proposed methodology corrects the existing methodology's inappropriate allocation of only a small portion of the cost pools associated with regional program offices to the final regional overhead cost pools. As a result, EPA's indirect rate calculations under the proposed methodology will no longer exclude large portions of its indirect costs for site response, the regional indirect rates will no longer be understated, and the indirect costs charged to responsible parties should increase significantly.

However, EPA will not have fully addressed our concerns until it demonstrates that it is using the proposed methodology to calculate the indirect costs charged to responsible parties. In 1992, EPA proposed a rule that would allow it to significantly increase the indirect costs that the agency could recover. However, EPA abandoned its rule-making because, among other reasons, the agency received many adverse comments from the responsible parties who might be required to pay these costs. Consequently, we have continued to report that EPA's existing methodology for calculating indirect cost reimbursements poses a high financial risk for the federal government. Because the indirect costs to be charged using the proposed methodology could be considerably higher than indirect costs now charged, responsible parties may again react adversely to the increase. Therefore, our concerns will continue until EPA actually implements the proposed methodology in its Superfund cost recovery program.

We trust that our comments will be useful to EPA as it proceeds with implementation of its proposed Superfund indirect cost methodology. If you have any questions about this letter, please feel free to contact me at 202-512-8341, or Mark Connelly at 202-512-8795.

Sincerely yours,



Linda M. Calbom
Director, Resources, Community,
and Economic Development, Accounting
and Financial Management Issues